DEQ in the Classroom:

Storm Drain Dumping

IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY

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Grade Level:

5th - 6th Grades

Objective:

To develop an awareness of what happens to water when it is contaminated through neighborhood runoffs.

Focus:

Begin by discussing how students would feel if everything that was dumped in the gutter went into a glass as they filled it from on the water tap.

Materials:

- ✓ Cardboard
- ✓ Wax paper
- ✓ Clay (the kind that hardens)
- ✓ Water
- ✓ Pollutants:
  - ✓ Food coloring
  - ✓ Oil
  - ✓ Salt
  - ✓ Pepper
  - ✓ Sand
  - ✓ Other materials that can represent pollutants
- ✓ Eyedropper
- ✓ Cup

Procedures:

Cover a piece of cardboard with wax paper and form a maze out of clay. The maze needs a starting point on one side of the cardboard and 2 exits on the side opposite the start. One exit will lead to the treatment plant and the other into a stream. Let the clay dry for one day. Label each exit. Students should make a list of things that may enter a gutter accidentally or on purpose. Place drops of pollution such as food coloring, salt water mixed with pepper, and oil on different locations of the maze. Allow one day for water to evaporate. Tilt the maze, add a drop of water at the starting point, and let it drain slowly to an exit. It will

pick up contaminants as it goes through the maze. Students should be able to describe what the drop looks like and feels like when it exits. If the drop went to the treatment plant, the drop gets replaced with a clean drop of water. If it ended in the overflow (untreated) exit, the drop is added to a cup labeled "stream." Discuss the problems associated with untreated urban runoff entering bodies of water.

Acknowledgements:
Texas Natural Resources Conservation Commission. November 1995.